

**HABITAT RESTORATION LANDSCAPE PLAN**

**FOR THE**

**MILWAUKEE COUNTY GROUNDS - NORTHEAST QUADRANT**

**DECEMBER 11, 2009**

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## BACKGROUND STATEMENT

The monarch butterfly (*Danaus plexippus*) is one of the best-known and most widely recognized species of butterflies in North America. Essentially a tropical species, the monarch has evolved a migratory strategy that enables it to utilize favorable weather and resources in the north for breeding over the summer months, and generations later, move south into the mountains in Mexico to survive the winter. Although the butterfly is common, the migration is so unique that it has been deemed “an endangered biological phenomenon.” The overwintering sites in Mexico have been studied since first being reported in 1975, but due to their ephemeral nature, virtually nothing is known about the roosting that occurs during the annual migrations south. Very few such sites have been documented and little is known about the physical conditions associated with them. Some of these monarch roosting sites have been identified in the Northeast Quadrant of the Milwaukee County Grounds on the northwestern portion of the land proposed for sale to UW- Milwaukee. Thus, these groves of trees that are known roosting sites, are significant for the monarchs and residents of Milwaukee County, and provide an incredible opportunity to help maintain and advance our understanding of this unique biological phenomenon.

### **1. Conservation goals for existing significant habitat areas**

- Protect and enhance the existing Monarch roosting sites and associated habitat and microclimate which supports them
- Preserve other natural features and resources that support desirable wildlife that currently or potentially could inhabit this area
- Preserve, enhance and reestablish native plant communities that increase natural area values and provide greater ecological diversity and stability
- Provide public access to the preserved habitats for passive uses including observation of the Monarch roosting phenomenon, enjoyment of the natural resources and utilizing the site for educational purposes

**2. Design Principles and Criteria for habitat preservation, restoration, enhancement, creation and management within the northeast quadrant.**

- The groves of Monarch roost trees must be preserved, enhanced and managed and replacement trees should be planted to supplement the aging trees over the long term.
- A habitat protection corridor linking the groves of Monarch roost trees to the County conservation land (Parcel 3) to the east must be preserved and enhanced. Monarch movement is the primary target for this corridor. Any road constructed to provide access to the UWM land from Swan Boulevard should be planned to minimize disruption of this habitat corridor both during construction and upon completion by locating it on the eastern edge of Outlot 1. Building placement should avoid any impacts to these key areas.
- Trails providing public access should link the UWM-owned parcels to the County conservation land to the east as well as to the surrounding natural and cultural resources and public parking.
- Public parking should be available to access the conservation areas.
- A standard for controlling invasive species in the UWM conservation areas must be established. It should include a requirement to fund ongoing maintenance and stewardship activities consistent with that standard.
- The stormwater management plans for development on the UWM lands should preserve or enhance the natural area values of the area and they should be integrated with existing natural resource features and topography.

**3. Recommendations for integrating these principles and criteria into future development in areas outside of the conservation areas**

- Campus landscaping should emphasize and prominently feature the use of native plant species.
- To the greatest extent possible the UWM development should incorporate “green” design and construction principles to minimize negative impacts on adjacent conservation areas and to provide functional examples of environmentally sound development practices.
- Establish funding for the study of Monarch roosting sites and long term monitoring and maintenance of existing and created wildlife habitat areas.

**4. A map indicating the use and location of existing significant habitat areas**

**5. A map of the northeast quadrant of the Milwaukee County Grounds showing the location of areas to be preserved, protected and enhanced and their relationship to existing properties, natural areas and proposed development zones**

## **6. Recommendations for the creation, enhancement and management of wildlife habitat areas**

### **a. Outlot 2 – Reserved for WisDOT Freeway reconstruction**

Outlot 2 contains large areas of habitat currently used by Monarch Butterflies and other wildlife as depicted on the Butterfly Habitat Map. This area has been significantly manipulated over time yet has developed vegetation that helps to create the microclimate needed to provide both nectaring (feeding on plant nectar) and roosting habitat for the Monarchs. These existing areas are shown on the Habitat Map included in this plan. It is anticipated that freeway reconstruction will disturb at least the southern half of this parcel sometime within the next five years. The footprint of freeway related improvements should be designed to minimize the impacts from re-grading and construction activities. Areas disturbed by construction should be restored utilizing native plantings, especially species from the attached Plant List. The habitat establishment and management strategies described for the other areas within this plan should also be implemented. Until construction activities disturb this parcel, these habitat areas should remain protected and be enhanced so that they continue to provide the habitat critical to the Monarch Roosting Phenomenon and other wildlife. The areas within this parcel that are not disturbed should likewise continue to be protected, enhanced and managed to maximize wildlife habitat and provide passive enjoyment of the natural resources and educational opportunities.

### **b. Habitat Protection Area – Between the Eschweiler area and Swan Blvd.**

The two most significant areas of the site from the Monarch habitat perspective are the Oak Grove to the northwest and the Sycamore tree grouping to the east of the Eschweiler buildings. Because of their unique location, characteristics, microclimate and nearby nectar sources these areas provide essential roosting habitat for the Monarchs as they migrate through the area in late fall. The delicate balance that sustains these two areas could easily be disturbed by development activities. The Habitat Protection Area was delineated by drawing a 120-foot wide protective buffer around the two tree areas and then connecting those areas with another buffer to define a contiguous habitat area. The portions of this area that are already occupied by buildings or pavement have been removed from the protected area since they no longer contain meaningful habitat qualities. The resulting Habitat Protection area represents that portion of the site, which is to be protected, preserved and environmentally enhanced. No buildings, disruptive site improvements or construction activities are allowed in this area. A long term Management Plan needs to be developed, funded and implemented to help eradicate existing invasive plant species and transform this area into a more sustainable natural area that can provide meaningful habitat for the Monarch

Butterflies and the other wildlife that utilize this area. This will also provide improved resources for passive recreation and education opportunities.

**c. Parcels 1 and 2 – UWM Development Land**

These parcels are designated for the development of the UWM Innovation Park. The majority of the site has been disturbed by the placement of soil fill and re-grading and has been revegetated. With the exception of the Habitat Protection Area these parcels currently contain few meaningful natural resources or critical wildlife habitat areas. It is appropriate that the majority of these parcels be utilized for the development of the UWM Innovation Park. In order to protect the integrity of the existing habitat areas at the north end of the parcels, the proposed roadway that intersects with Swan Boulevard should be realigned to the eastern edge of Outlot 1 on the northern end of the site. This will prevent the critical habitat areas at the north end from being bisected by development, preserve the integrity of the larger habitat area being preserved along Swan Boulevard and will help to link this area with the new habitat areas being created on Parcel 3 to the east. New landscaping around buildings should integrate with existing natural areas and be planted primarily with native species to help provide a consistent character throughout the Northeast Quadrant. The open, undeveloped areas should be left in a more natural state and managed to maintain and enhance these areas consistent with the recommendations established for the surrounding parcels. These efforts will help to ensure higher quality, sustainable habitats and improved passive recreation and educational opportunities.

**d. Outlot 1 – Transition between Development Land and Parkland**

The existing characteristics of this parcel are very similar to Parcels 1 and 2. This area has previously been targeted to serve as a buffer between the development areas and the parkland to the east. The proposed roadway that intersects with Swan Boulevard should be realigned to the eastern edge of this parcel. Development of this area should be consistent with the recommendations for Parcels 1 and 2. Development of storm water management facilities utilizing current best management practices is appropriate in this area. They should be designed to integrate with the surrounding topography, habitat areas and other structures and site improvements. Roadways, walkways, site amenities and buildings are also appropriate on this parcel provided they are consistent with the habitat preservation, enhancement and maintenance goals, principles and criteria outlined in this plan. Designs for this area should focus on integrating the proposed improvements in a manner that not only provides a buffer for the adjacent habitat areas but also serve to integrate the development with the existing and proposed natural and cultural resources in the Northeast Quadrant and greater surrounding area. The vegetation should be designed

and maintained to integrate with and enhance the proposed habitat to be created on the parkland to the east and to serve as a transition between developed areas and the surrounding habitat.

**e. Parcel 3 – Parkland**

The majority of this parcel has been disturbed by the placement of soil fill and re-grading and has been revegetated as well. This parcel, greater than 50 acres in size, will provide new habitat areas to replace those lost or impacted by the proposed developments and to help reconnect the previously severed Environmental Corridor that runs through this area along the Menomonee River. The Parks Department will undertake the design, construction and management of this parcel utilizing the goals, principles and criteria recommended in this plan. The land will be managed to remove and help prevent invasive species from dominating the area. Select native trees and new plant species from the Recommended Planting List will be established to create additional meaningful wildlife habitat and a more sustainable environment. Walks, trails or paths will be established in this area to provide critical linkages to the surrounding community and resources. These efforts will begin in the Habitat Priority Creation Area located in the northwest corner of this parcel and progress to the east and south over time. This priority has been established to help integrate the existing significant habitat areas to the west with the new habitat being created in hopes that the Butterflies and other wildlife utilizing these areas will migrate into and flourish in the new habitat. This approach also serves to create a more unified and functional amenity for the public by linking together the many natural and cultural resources present in this section of the community.